

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



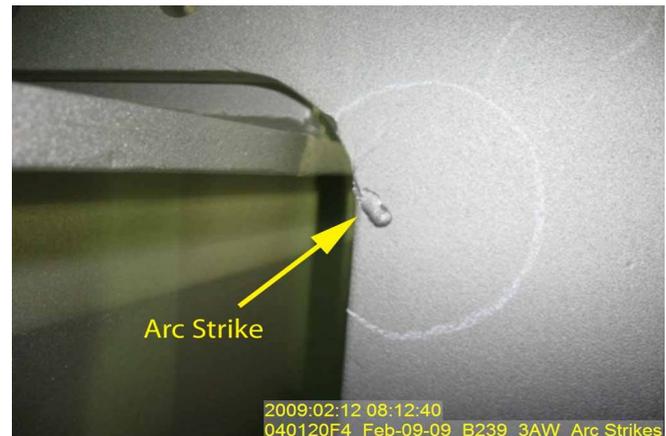
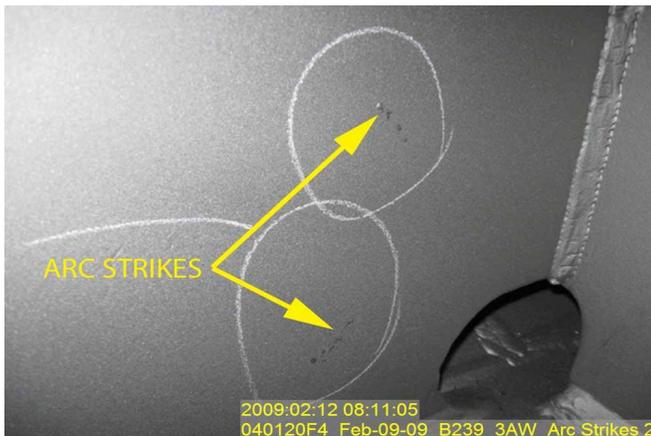
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000229**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Feb-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0204**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 3AW
Procedural	Procedural	Description:	Bottom Plates and Side Plates

Reference Description: Missing MT inspections after grinding of arc strikes**Description of Non-Conformance:**

QA Inspector performed a preliminary random visual inspection after the grit blast of the internal components of the bottom panel and side panel super assemblies of segment 3AW. Arc strikes were found in various locations on the bottom and side plating components. ZPMC QC personnel were made aware of these locations and repairs were made by grinding without carrying out magnetic particle inspection as per section 9.2.2.1 of the ZPMC Welding Quality Control Plan (WQCP).

**Applicable reference:**

Section 9.2.2.1 of the ZPMC Welding Quality Control Plan (WQCP)

“The surface defects such as pitting, arc strikes and compress marks shall be repaired by grinding and arc gouge excavation if necessary. The ground surface shall be transitioned smoothly. If the thickness after grinding is within the allowance shall have no need for repairing weld. Magnet Particle test shall be performed for the arc strike area after grinding for verifying no more defects.”

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: QA Inspector Rodney Patterson

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 10:20, verbal

Name of Caltrans Engineer notified: Stanley Ku, Construction Senior

Time and method of notification: 15:30, verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 150 0042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	Wahbeh, Mazen	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 19-Feb-2009

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project Manager - OBG

Document No: 05.03.06-000197

Subject: NCR No. ZPMC-0204

Reference Description: Missing MT inspections after grinding of arc strikes

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG **Lift:**

Remarks:

QA Inspector performed a preliminary random visual inspection after the grit blast of the internal components of the bottom panel and side panel super assemblies of segment 3AW. Arc strikes were found in various locations on the bottom and side plating components. ZPMC QC personnel were made aware of these locations and repairs were made by grinding without carrying out magnetic particle inspection as per section 9.2.2.1 of the ZPMC Welding Quality Control Plan (WQCP).

Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0204

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000197

Subject: NCR No. ZPMC-0204

Dated: 11-Mar-2009

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000202 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ABFJV has reminded ZPMC that arc strikes as well as temporary attachment removal areas require MT after grinding and prior to painting. ABFJV has conducted documented training.

ABFJV has reminded ZPMC that arc strikes as well as temporary attachment removal areas require MT after grinding and prior to painting. ABFJV has conducted documented training with CWI and MT inspectors regarding this issue and have also reviewed this NCR during the training session. With the attached data, ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000202R00;

Caltrans' comments:

Status: AAP

Date: 17-Mar-2009

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation that the area of the arc strike has been accepted by Magnetic Particle testing. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0204 at that time.

Submitted by: Wright, Doug

Date: 18-Mar-2009

Attachment(s):

Tool Box Training

Subject:

CWI and MT inspector training, CT NCR's ZPMC-0123,
ZPMC-0162, ZPMC -0145, ZPMC-0204, ZPMC-0205,
ZPMC-0206, ZPMC-0207

Date:

Mar. 10th. 2009

Conducted By:

Steve Lawton

Name	Title
Xu Xiangping	CWI
zheng zhong Wang/Nam	}
Gousses	
Wan Zhaohang (Fotter)	
李 振 宇	
Li Zhijiang	
Wan wen zhong	
zhao chen sun	
zhang zhi ren	
Lu Jianhua	

Tool Box Training Agenda

Subject: CWI responsibilities

Reason for Training: Several NCR's relating to CWI responsibility, where it appears the CWI is not completely aware of all duties expected of a CWI

Reference: NCR's, ZPMC-0123, ZPMC-0145, ZPMC-0162, ZPMC-0202, ZPMC-0204, ZPMC-0205

1. **AWS D1.5-2002 Section 6 Responsibilities of QC Inspector**
 - a. 6.2 Inspection of Materials
 - b. 6.3 Inspection of WPS Qualification and Equipment
 - c. 6.4 Inspection of Welder, Welding Operator and Tack Welder Qualifications
 - d. 6.5 Inspection of Work and Records
2. **Time of Inspection**
 - a. Fit-up
 - b. inprocess
 - c. Final
3. **AWS D1.5-02 Section 3**
 - a. 3.2 Preparation of Base Material
 - b. 3.3 Assembly
 - c. 3.4 Control of Distortion and Shrinkage
 - d. 3.6 Weld Profiles
 - e. 3.7 Repairs

Tool Box Training Agenda

Subject: MT of welds

Reason for Training: Several CT NCR's relating to welds accepted by MT by ZPMC then later found to be unacceptable by CT QA inspection.

Reference: CT NCR's ZPMC-0203, ZPMC-0204, ZPMC-0034, ZPMC-0035, ZPMC-0077, ZPMC-0191, ZPMC-0192, ZPMC-0194,

1. **MT Techniques**
 - a. Equipment
 - b. Pie Gage
 - c. Powder

2. **Inspection Techniques**
 - a. Lighting
 - b. Position of body (distance of eyes to the weld surface)
 - c. Speed
 - d. Amount of Powder

3. **Inspection Criteria**
 - a. ZPMC Inspection procedures
 - b. Relevant Versus Non Relevant indications

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000197

Subject: NCR No. ZPMC-0204

Dated: 24-Aug-2009

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000202 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has identified the arc strike areas, ground them and performed MT as required. Attached are the results of the MT inspection. ZPMC requests closure of this NCR.

ZPMC has identified the arc strike areas, ground them and performed MT as required. Attached are the results of the MT inspection. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000202R01;

Caltrans' comments:

Status: CLO

Date: 31-Aug-2009

The proposed resolution is acceptable. The inspection documents requested in Rev 0 of NPR-0202 have been provided. The Department concurs that Non-Conformance ZPMC-0204 is closed.

Submitted by: Wright, Doug

Date: 31-Aug-2009

Attachment(s):



No. B-457

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-8-20

REGARDING: NCR-000229 (ZPMC-204)

With this letter of response, ZPMC requests closure for Caltrans NCR-000229 (ZPMC-204). We agree what describe in the non-conformance report, and have ground the arc strike areas and performed the MT inspection to the base metal. We should remind here that the arc strike areas all marked by the inspector and the MT process and result was also verified by the site inspectors. Therefore we are providing the MT reports to support the good quality of the arc strikes.

so base on the above exp to lanation and attached documentations, ZPMC applies to close the caltrans's report NCR-000229 (ZPMC-204).

Please reference attached document for acceptance and closure the NCR-000229 (ZPMC-204).

ATTACHMENT:

NCR-000229 (ZPMC-204)

The final MT inspection reports

Zhuo Shuangbao
2009. 8. 20



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 19-Feb-2009

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project Manager - OBG

Document No: 05.03.06-000197

Subject: NCR No. ZPMC-0204

Reference Description: Missing MT inspections after grinding of arc strikes

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Lift:

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Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0204

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom

File: 05.03.06

02.02;15.04

05.03.06-000197.NCT

Received
NCT-000197 19 Feb 09

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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Bay Area Branch
 690 Walnut Ave. St. 150
 Vallejo, CA 94592-1133
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Contract #: 04-0120F4
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9
 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China

Report No: NCR-000229

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-Feb-2009

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0204

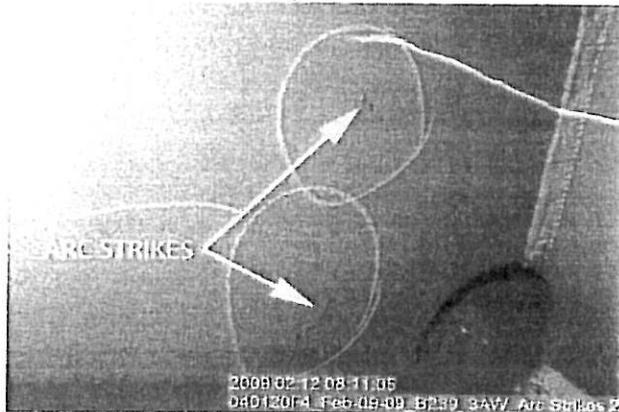
Type of problem:

Welding **Concrete** **Other**
Welding **Curing** **Procedural** **Bridge No:** 34-0006
Joint fit-up **Coating** **Other** **Component:** Segment 3AW
Procedural **Procedural** **Description:** Bottom Plates and Side Plates

Reference Description: Missing MT inspections after grinding of arc strikes

Description of Non-Conformance:

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: QA Inspector Rodney Patterson
Name of individual from Contractor notified: Peter Shaw
Time and method of notification: 10:20, verbal
Name of Caltrans Engineer notified: Stanley Ku, Construction Senior
Time and method of notification: 15:30, verbal
QC Inspector's Name: Wang Lu
Was QC Inspector aware of the problem: Yes No
Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 150 0042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR



母材探伤申请表

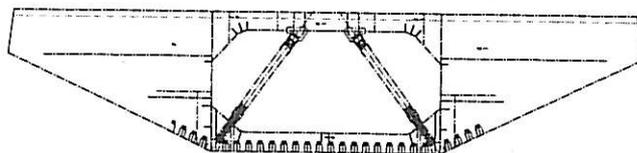
SHANGHAI ZHENHUA PORT MACHINERY CO LTD

APPLICATION FORM FOR BASE MATERIAL NDT

产品名称 Project Name		美国海湾大桥		探伤类别 NDT type	100% MT	数量 Quantity		
序号 No.	零部件 图号 Drawing No.	零部件名称 Items	件号 Item No.	数量 Quantity	板厚/尺寸 Thickness/Di mension	炉批号 Batch No.	材料 Material	结论 Result
1	SEG13A	隔板	FB25B		18*200*300	NA	A709M-3 45T2	✓
2	SEG13A	隔板	FB5B		14*40*50	NA	A709M-3 45T2	✓
3	SEG13A	顶板 I 肋	DP9A		30*50*60	NA	H PS 485- WT2	✓
4.	SEG13A	纵桁	LD3A		25*50*100	NA	A709M-3 45T2	✓
5	SEG13A	腹板	EP1A		22*30*200	NA	A709M-3 45F2	✓
6	SEG13A	隔板	FB17A		16*100*100	NA	A709M-3 45T2	✓
7	SEG13A	纵桁	LD12A		14*50*50	NA	A709M-3 45T2	✓

探伤位置图

Scheme showing the test part



车间位置: 外场

申请人 Applicant	张强 胡国兴	日期 Date	09.06.19	主探者 Inspected by	傅志强	日期 Date	2007.08.19
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REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-13030		DATE日期 2009.08.19		PAGE OF页码 1/1	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: SEG13A/SEG15A FLOOR BEAM/I-RIB/WEB PLATE/ LONGITUDINAL DIAPHRAGM			CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2009			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2/F2 /HPS485-WT2 18/14/40/30/50/25/22/16mm			
WELDING PROCESS 焊接方法	NA	TYPE OF JOINT 焊缝类型	NA			
WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
FB25B				ACC.		material
FB5B				ACC.		material
DP9A				ACC.		material
LD3A				ACC.		material
EP1A				ACC.		material
FB17A				ACC.		material
LD12A				ACC.		material
BLANK						
EXAMINED BY主探 Fu Zhiqiang <i>Fu Zhiqiang</i>			REVIEWED BY 审核 <i>Xu Hai</i>			
LEVEL - II SIGN 签名 / DATE日期 <i>08.19</i>			LEVEL-II SIGN / DATE日期 <i>08.19</i>			
质量经理 / QCM <i>Wang Jianhua</i>			用户CUSTOMER			
签字 SIGN / 日期 DATE <i>8.19</i>			签字 SIGN / 日期 DATE			

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000373**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:****Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0204**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 13-Feb-2009**Description of Non-Conformance:**

QA Inspector performed a preliminary random visual inspection after the grit blast of the internal components of the bottom panel and side panel super assemblies of segment 3AW. Arc strikes were found in various locations on the bottom and side plating components. ZPMC QC personnel were made aware of these locations and repairs were made by grinding without carrying out magnetic particle inspection as per section 9.2.2.1 of the ZPMC Welding Quality Control Plan (WQCP).

Contractor's proposal to correct the problem:

Grind all areas where arc strikers were documented and perform required NDT.

Corrective action taken:

Contractor ground all areas in question and submitted MT report verifying base metal was not damaged.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:** **Date:****Is Engineer's approval attached?** Yes No**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Jim Simonis: 1347 246 3441, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim **Quality Assurance Inspector****Reviewed By:** Wahbeh, Mazen **QA Reviewer**